No.



8200124

# THE UNITED STAYLES OF AMERICA

Dairyland Seed Co., Inc.

TUltereas. There has been presented to the

## Secretary of Agriculture

AN APPLICATION REQUESTING A CERTIFICATE OF PROTECTION FOR AN ALLEGED NOVEL VARIETY OF SEXUALLY REPRODUCED PLANT, THE NAME AND DESCRIPTION OF WHICH ARE CONTAINED IN THE APPLICATION AND EXHIBITS, A COPY OF WHICH IS HEREUNTO ANNEXED AND MADE A PART HEREOF, AND THE VARIOUS REQUIREMENTS OF LAW IN SUCH CASES MADE AND PROVIDED HAVE BEEN COMPLIED WITH, AND THE TITLE THERETO IS, FROM THE RECORDS OF THE PLANT VARIETY PROTECTION OFFICE, IN THE APPLICANT(S) INDICATED IN THE SAID COPY, AND WHEREAS, UPON DUE EXAMINATION MADE, THE SAID APPLICANT(S) IS (ARE) ADJUDGED TO BE ENTITLED TO A CERTIFICATE OF PLANT VARIETY PROTECTION UNDER THE LAW.

NOW, THEREFORE, THIS CERTIFICATE OF PLANT VARIETY PROTECTION IS TO GRANT UNTO THE SAID APPLICANT(S) AND THE SUCCESSORS, HEIRS OR ASSIGNS OF THE SAID APPLICANT(S) FOR THE TERM OF eighteen years from the date of this grant, subject to the payment of the required fees and periodic replenishment of viable basic seed of the variety in a public repository as provided by LAW, the right to extide others from selling the variety, or offering it for sale, or reproducing it,

PORTING IT, OR EXPORTING IT, OR USING IT IN PRODUCING A HYBRID OR DIFFERENT THEREFROM, TO THE EXTENT PROVIDED BY THE PLANT VARIETY PROTECTION ACT.

NITED STATES SEED OF THIS VARIETY (1) SHALL BE SOLD BY VARIETY NAME ONLY AS

CERTIFIED SEED AND (2) SHALL CONFORM TO THE NUMBER OF GENERATIONS
THE OWNER OF THE RIGHTS. (84 STAT. 1542, AS AMENDED, 7 U.S.C. 2321 ET SEQ.)

SOYBEAN

'DSR-227'

In Testimony Wancroot, I have hereunto set my hand and caused the seal of the Plant Turisty Protection Office to be affixed at the City of Washington this 30th day of June in

this 30th day of June in the year of our Lord one thousand nine

hundred and eighty-three.

Jan of Black

Secretary of Agriculture

Allest

Commissioner Commissioner

Plant Variety Protection Offics Grain Division

Agricultural Marketing Service

#### UNITED STATES DEPARTMENT OF AGRICULTURE FORM APPROVED AGRICULTURAL MARKETING SERVICE OMB NO. 40-R3822 LIVESTOCK, POULTRY, GRAIN & SEED DIVISION No certificate for plant variety protection may APPLICATION FOR PLANT VARIETY PROTECTION CERTIFICATE be issued unless a completed application form has been received (5 U.S.C. 553). INSTRUCTIONS: See Reverse, TEMPORARY DESIGNATION OF VARIETY 1b. VARIETY NAME FOR OFFICIAL USE ONLY PV NUMBER 8200124 A240U DSR-227 R15 5/6/83 FILING DATE TIME KIND NAME 3. GENUS AND SPECIES NAME A.M. 2. 5/14/82 11:30 XPXIXI. Soybean Glycine MAX DATE FEE RECEIVED 500.00 FAMILY NAME (BOTANICAL) 5. DATE OF DETERMINATION 5/14/82 250:00 December 1979 Leguminosae 7. ADDRESS (Street and No. or R.F.D. No., City, State, and ZIP TELEPHONE AREA NAME OF APPLICANT(S) CODE AND NUMBER P. O. Box 958 Dairyland Seed Company, Inc. 3570 Hwy. H 414-338-0163 West Bend, WI 53095 11. DATE OF INCOR-10. IF INCORPORATED, GIVE STATE AND IF THE NAMED APPLICANT IS NOT A PERSON, FORM OF PORATION ORGANIZATION: (Corporation, partnership, association, etc.) DATE OF INCORPORATION Dec., 1963 Wisconsin Corporation NAME AND MAILING ADDRESS OF APPLICANT REPRESENTATIVE(S), IF ANY, TO SERVE IN THIS APPLICATION AND RECEIVE 12. ALL PAPERS: Dairyland Seed Company, Inc. Thomas G. Strachota P. O. Box 958 West Bend, WI 53095 CHECK BOX BELOW FOR EACH ATTACHMENT SUBMITTED: 13A. Exhibit A, Origin and Breeding History of the Variety (See Section 52 of the Plant Variety Protection Act.) X 13B. Exhibit B, Novelty Statement. 13C. Exhibit C, Objective Description of the Variety (Request form from Plant Variety Protection Office.) X 13D. Exhibit D, Additional Description of the Variety. DOES THE APPLICANT(S) SPECIFY THAT SEED OF THIS VARIETY BE SOLD BY VARIETY NAME ONLY AS A CLASS OF CERTIFIED SEED? (See Section 83(a). (If "Yes," answer 14B and 14C below.) X YES NO DOES THE APPLICANT(S) SPECIFY THAT THIS VARIETY BE 14c, IF "YES," TO 14B, HOW MANY GENERATIONS OF PRODUC-14b. LIMITED AS TO NUMBER OF GENERATIONS? TION BEYOND BREEDER SEED? 1 CERTIFIED YES REGISTERED 1 FOUNDATION NO (If "Yes," give DID THE APPLICANT(S) FILE FOR PROTECTION OF THIS VARIETY IN OTHER COUNTRIES? name of countries and dates, X NO (If "Yes," give name of countries 15b. HAVE RIGHTS BEEN GRANTED THIS VARIETY IN OTHER COUNTRIES? and dates.) DOES THE APPLICANT(S) AGREE TO THE PUBLICATION OF HIS/HER (THEIR) NAME(S) AND ADDRESS IN THE OFFICIAL JOURNAL? X YES NO The applicant(s) declare(s) that a viable sample of basic seed of this variety will be furnished with the application and will be replenished upon request in accordance with such regulations as may be applicable. The undersigned applicant(s) is (are) the owner(s) of this sexually reproduced novel plant variety, and believe(s) that the variety is distinct, uniform, and stable as required in Section 41, and is entitled to protection under the provisions of Section 42 of the Plant Variety Act. Applicant(s) is (are) informed that false representation herein can jeopardize protection and result in penalties.

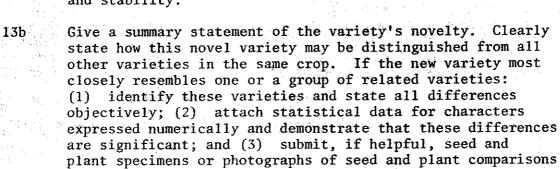
### **INSTRUCTIONS**

GENERAL: Send an original copy of the application and exhibits, at least 2,500 viable seeds, and \$500 fee (\$250 filing fee and \$250 examination fee) to U.S. Dept. of Agriculture, Agricultural Marketing Service, Livestock, Poultry, Grain and Seed Division, Plant Variety Protection Office, National Agricultural Library Building, Beltsville, Maryland 20705. (See section 180.175 of the Regulations and Rules of Practice.) Retain one copy for your files. All items on the face of the form are self-explanatory unless noted below.

#### ITEM

- Give the date the applicant determined that he had a new variety based on (1) the definition in section 41(a) of the Act and (2) the date a decision was made to increase the seed.
- Give: (1) the genealogy, including public and commercial varieties, lines, or clones used, and the breeding method; (2) the details of subsequent stages of selection and multiplication; (3) the type and frequency of variants during reproduction and multiplication and state how these variants may be identified and (4) evidence of uniformity and stability.

BECEINED



Fill in the Exhibit C, Objective Description form, for all characteristics for which you have adequate data.

clearly indicating novelty.

- Describe any additional characteristics that are not described, or whose description cannot be accurately conveyed in Exhibit C. Use comparative varieties as is necessary to reveal more accurately the description of characteristics that are difficult to describe, such as, plant habit, plant color, disease resistance, etc.
- 14a If "YES" is specified (seed of this variety be sold by variety name only as a class of certified seed) the applicant may NOT reverse his affirmative decision after the variety has either been sold and so labeled, his decision published, or the certificate has been issued. However, if the applicant specified "NO," he may change his choice. (See section 180.16 of the Regulations and Rules of Practice.)
- See section 42 of the Plant Variety Protection Act and section 180.7 of the Regulations and Rules of Practice.

Exhibit A, Origin and Breeding History of the Variety

DSR-227 is a  $F_5$  derived line from the cross of Wayne x Hark. The breeding procedure was the pedigree method.

		·
1967	$\mathbf{F_0}$	Cross
1968(Winter)	Fĭ	Grow Out
1968	$\overline{F_2}$	Selection
1969	$F_3^-$	Single Plant Selection
1970	F4	Preliminary Yield Test-Reselection
1971	F <sub>5</sub>	Single Plant Selection
1972	$F_6$	Preliminary Yield Test
1973	$\mathbf{F}_{7}^{\circ}$	Replicated Yield Test
1974	F8	Replicated Yield Test
1975	F9	Replicated Yield Test, First Increase
1976	F10	Replicated Yield Test
1977	F11	Replicated Yield Test, Reselection for Uniformity
1978	F <sub>12</sub>	Replicated Yield Test
1979	$\mathbf{F}_{13}^{-2}$	Replicated Yield Test
1980	F14	Replicated Yield Test, First Increase
1981	F15	Replicated Yield Test, Second Increase

This particular F5 selection has shown very little segregation. There is a very low frequency of the parental off types: white flowers and yellow hila. Reselection of the variety for uniformity of plant type in the F11 was very successful.

Addition to Application: 8200124, 'DSR-227' R/S

Over the last three years of increase the following variants have been found.

	•	Percent
Seed	- Hilum Colors: Yellow	.012
Plant	- Flower Color: White	.046

DSR-227 8200124

Exhibit B, Novelty Statement

DSR-227 is most similar to the variety DSR-232, but DSR-227 has buff hila whereas DSR-232 has imperfect black hila.



FORM GR-470-2 (6-15-72)

BUD

BLIGHT

WILDFIRE

RHIZOCTONIA

ROT

OTHER (Specify)

# UNITED STATES DEPARTMENT OF AGRICULTURE AGRICULTURAL MARKETING SERVICE GRAIN DIVISION HYATTSVILLE, MARYLAND 20782

DSR-227

EXHIBIT	C
(Soybean	2

	ECCDIDION OF WARREN
	ESCRIPTION OF VARIETY  AN (GLYCINE MAX)
NAME OF APPLICANT(S)	
Dairyland Seed Company, Inc.	FOR OFFICIAL USE ONLY
ADDRESS (Street and No., or R.F.D. No.; City, State, and ZIP Co	PVPO NUMBER 200124
P. O. Box 958, 3570 Hwy. H	VARIETY NAME OR TEMPORARY
West Bend, WI 53095	DESIGNATION
	DSR-227
Place the appropriate number that describes the varies	tal character of this variety in the boxes below.
i, seed share:	
1 1 = SPHERICAL 2 = SPHERICAL 3 = E	LONGATE 4 = OTHER (Specify)
2. SEED COAT COLOR:	
1 = YELLOW 2 = GREEN 3 = BRO	· ISHADE:
5 = OTHER (Specify)	WN 4 = BLACK   2   1 = LIGHT 2 = MEDIUM 3 = DARK
3. SEED COAT LUSTER:	4. SEED SIZE
1 l = DULL 2 = SHINY	
	GRAMS PER 100 SEEDS
5. HILUM COLOR:	SHADE:
1 1 = BUFF 2 = YELLOW 3 = BROWN 4 =	GRAY 5 = IMPERFECT
6 = BLACK 7 = OTHER (Specify)	BLACK $\begin{bmatrix} 2 \end{bmatrix}$ 1 = LIGHT 2 = MEDIUM 3 = DARK
6. COTYLEDON COLOR:	7. LEAFLET SIZE (See Reverse):
	7. CLACLET SIZE (See Reverse);
1 YELLOW 2 = GREEN	1 = SMALL 2 = MEDIUM 3 = LARGE
8. LEAFLET SHAPE:	
1 = OVATE 2 = OBLONG 3 = LANCEOLATE	4 = ELLIPTICAL 5 = OTHER (Specify)
9. LEAF COLOR (See reverse):	4 = ELLIPTICAL 5 = OTHER (Specify) Lanceolate-Elliptical
<b>-</b>	10. FLOWER COLOR:
2 T = LIGHT GREEN 2 = MEDIUM GREEN 3 =	DARK GREEN 1 = WHITE 2 = PURPLE
11. POD COLOR:	2   3 = OTHER (Specify)     12: POD SET:
2 = TAN 2 = BROWN 3 = BLACK	
LZ]	1 = SCATTERED 2 = CONCENTRATED
13. PLANT PUBESCENCE COLOR:	SHADE:
1 = GRAY 2 = BROWN 3 = OTHER (Specify)	1 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1
14. PLANT TYPES (See Reverse):	2 1 = LIGHT 2 = MEDIUM 3 = DARK
	15. PLANT HABIT:
3 1=SLENDER 2=BUSHY 3=INTERMEDIATE	2 1 = DETERMINATE 2 = INDETERMINATE
16. HYPOCOTYL COLOR:	J-OTHER (Specify)
1	17. SEED PROTEIN:
2 1 = GREEN 2 = PURPLE	1 = A 2 = B
18. NUMBER OF DAYS TO FLOWERING 19. MATURITY GROU	P:
Place a zero in first box (e.g. 0 9) when 1 = 00	2 = 0 3 = 1 4 = 11 5 = 111
	7 = v 8 = vi 9 = vii 10 = viii
20. SIZE OF 10 DAY OLD SEEDLING GROWN UNDER CONSTANT (e.g. 0 2) when size is 9 mm. or less.)	LIGHT (Growth Chamber) AT 25° C. (Place a zero in first box
MM. LENGTH MM. LENGT	H MM. WIDTH
OF COTYLE	EDON OF COTYLEDON
21. DISEASE: (Enter 0 = Not Tested; 1 = Susceptible; 2 = Resistant	
0 BACTERIAL 0 SOYBEAN 0 DOWNY MILDEW	0 PURPLE 0 POD AND 0 ROOT
	C C C C C C C C C C C C C C C C C C C
O FROGEYE O STEM 1 PHYTO-PHTHORA	1 BROWN TARGET 0 BROWN SPOT 5

#### FORM GR-470-2 (REVERSE)

CHARACTER	N	NAME OF VARIETY			CHARACTER		NAME OF VARIETY	
Plant shape		A4			Petiole angle (		Crawford	
Leaf shape					Seed size			
Leaf color				Seed shape				
Leaf surface	S	Sprite			Seedling pigmentation			
GIVE DATA FOR	SUBMITTED AND	SIMILAR STA	NDARD VARI	ETY:	<u>,</u>			
	NO. OF DAYS	LODGING	PLANT	LEAF SIZE	CONT	ENT	AVERAGE NO.	
VARIETY		TO MATURITY SCORE HEIGHT					OF PODS PER TODINE	

VARIETY	NO. OF DAYS TO MATURITY		PLANT HEIGHT	LEAF SIZE		CONTENT		AVERAGE NO.	
				Width	Length	Protein	Oil	OF PODS PER PLANT	IODINE NO.
Submitted	135	1.5	72 cm	133	161		%	95	·
Name of similar variety DSR-232	136	1.0	68 cm	145	149		, ,	122	

#### INSTRUCTIONS

GENERAL: The following publications may be used as a reference aid for completing this form:

- 1. Scott, Walter O. and Samuel R. Aldrich, 1970, Modern Soybean Production, The Farmer Quarterly.
- 2. Norman, A. G., 1963, The Soybean: Genetics, Breeding, Physiology, Nutrition, Management.
- 3. McKie, J. W., and K. L. Anderson, 1970, The Soybean Book.

**LEAF COLOR:** Nickerson's or any recognized color fan may be used to determine the leaf color of the described variety. The following Soybean varieties may be used as a guide to identify the colors listed on the form.

COLOR VARIETY
Light Green "Ada"
Medium Green "Wilkin"
Dark Green "Swift"

LEAF SIZE: The following varieties may be used as a guide to identify the relative size leaves.

SMAIL "Amsoy"
Medium "Bonus"
Large "Anoka"

PLANT TYPE: The following varieties may be used as a guide to identify the plant type.

TYPE VARIETY
Slender "Vansoy"
Intermediate "Wirth"
Bushy "Adelphia"



Exhibit D, Additional Description of the Variety

DSR-227 differs from DSR-232 in two other characteristics:

 $\begin{array}{ccc} \underline{\text{Character}} & \underline{\text{DSR-227}} & \underline{\text{DSR-232}} \\ \\ \text{Leaflet Shape} & \text{Lanceolate-Elliptical} & \text{Ovate} \\ \text{Leaflet Size} & \text{Small} & \text{Medium} \\ \end{array}$ 



#### COLLATERAL ASSIGNMENT

WHEREAS, Dairyland Seed Co., Inc., of West Bend, Wisconsin, hereinafter called "Assignor" is the owner of all rights to certain inventions in the following plant varieties for which said Assignor has obtained the following United States Plant Variety Protection Act Certificates:

Certificate No.	<u>Variety</u>	Dated Issued
7900023	Magnum Alfalfa	1-14-82
8900229	Magnum III Alfalfa	6-29-90
8100020	DSR-141 Soybean	2-26-81
8100021	DSR-171 Soybean	2-26-81
8100022	DSR-207 Soybean	2-26-81
8100023	DSR-232 Soybean	6-11-81
8100096	DSR-120 Soybean	8-27-81
8200123	DSR-320 Soybean	9-29-83
8200124	DSR-227 Soybean	6-30-83
8200125	DSR-352 Soybean	9-29-83
8500209	DSR-287 Soybean	1-30-87
8500210	DSR-297 Soybean	1-30-87
8500211	DSR-317 Soybean	1-30-87
8800065	DSR-128 Soybean	9-30-88
8800067	DSR-155 Soybean	9-30-88

WHEREAS, M&I Marshall & Ilsley Bank, hereinafter called "Assignee," a corporation of Wisconsin having its principal office in Milwaukee, Wisconsin, is desirous of acquiring a security interest in said inventions and certificates:

NOW, THEREFORE, in consideration of, and in security for, certain loans by Assignee to Assignor, the receipt of which by said Assignor is hereby acknowledged, said Assignor, by this document, does hereby conditionally assign, and transfer unto the Assignee the full and exclusive right for the territory of the United States of America, its territories and possessions, in and to said inventions as described in the certificates and in and to said certificates. Until repayment of all loans from Assignee to Assignor, both present and future, Assignee may hold and enjoy the certificates for its own use and behoof, and for its successors and assigns, to the full end term for which said certificates has been granted, as fully and entirely as the same would have been held by said Assignor had this assignment not been made.

Assignee agrees to re-assign said inventions and said certificates to Assignor conditionally upon the repayment of all loans from Assignor to Assignee.

F. JAM 9.2 1999.

Executed this  $20^{7}$  day of January, 1992.

DAIRYLAND SEED CO., INC.

By: //lionned // Turby
Thomas G. Strachota

Thomas G. Strachota Executive Vice President

Attest: Malie G. Struckota

Marie A. Strachota

Secretary

Date: 1-20-92

Subscribed and sworn to before me this 20th day of <u>January</u>, 1992.

Notary Public, State of Wisconsin My Commission: Expuse 5/92

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